

Appendix

Supplementary figures

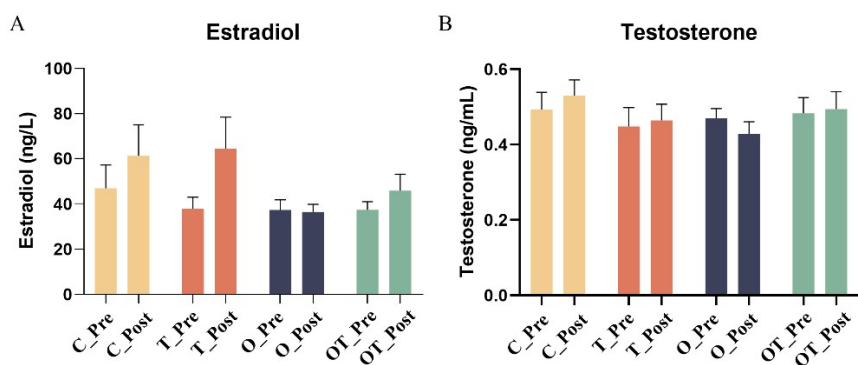


Fig. S1. Changes of sex hormone (A) estradiol, and (B) testosterone secretion levels in each group pre- and post-intervention. Data are presented as the Means \pm SEM.

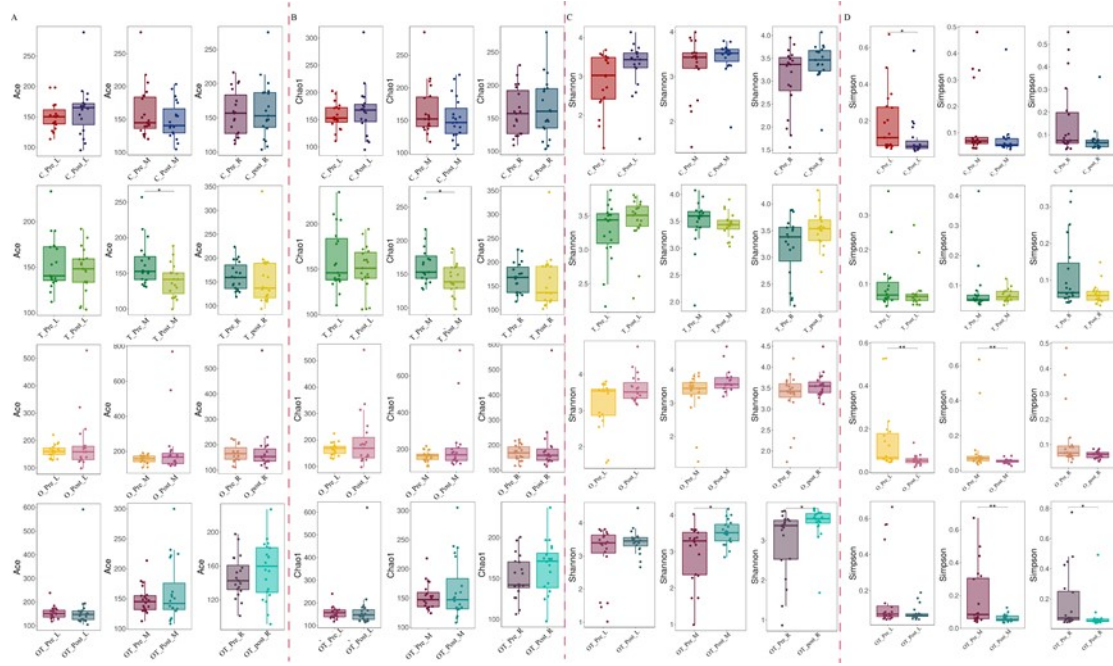


Fig. S2 α -diversity (A) Ace index, (B) Chao1 index, (C) Shannon index, and (D) Simpson index of skin microbiota in each group pre- and post-intervention.

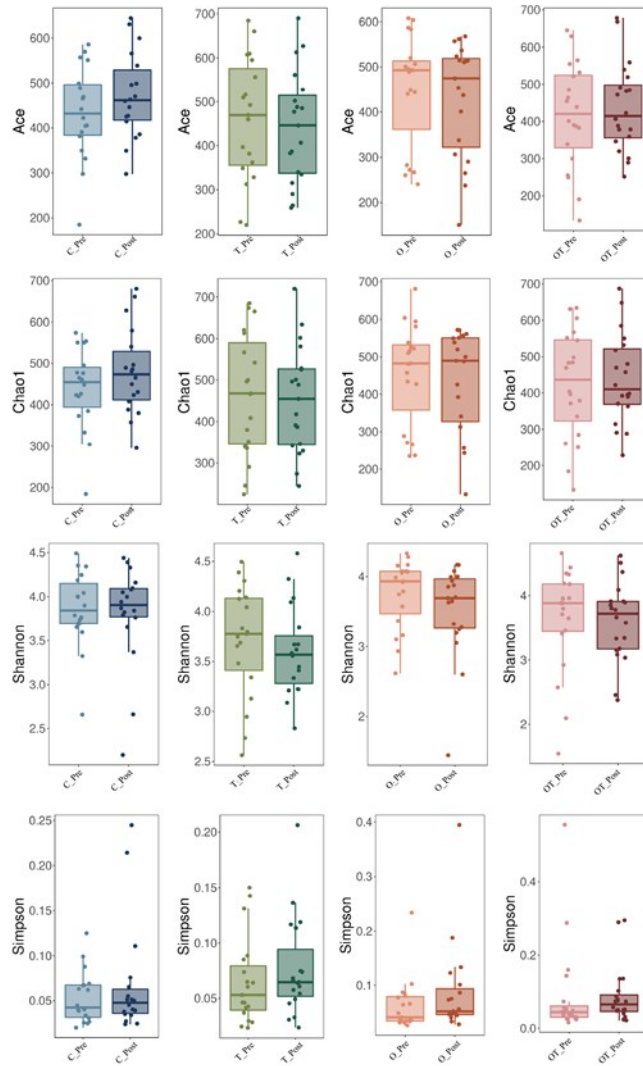


Fig. S3 α -diversity (A) Ace index, (B) Chao1 index, (C) Shannon index, and (D) Simpson index of gut microbiota pre- and post-intervention.

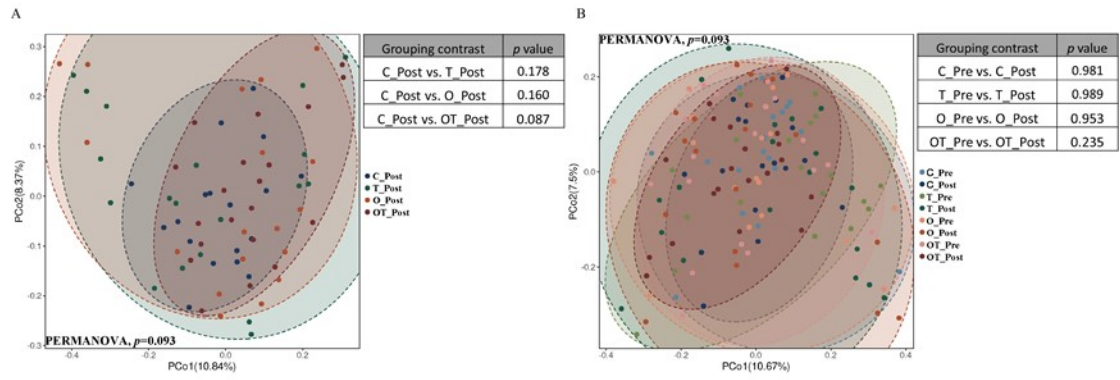


Fig. S4 PCoA of gut microbiota in (A) T_Post, O_Post, and OT_Post compared with C_Post group, and (B) each group pre- and post-intervention.

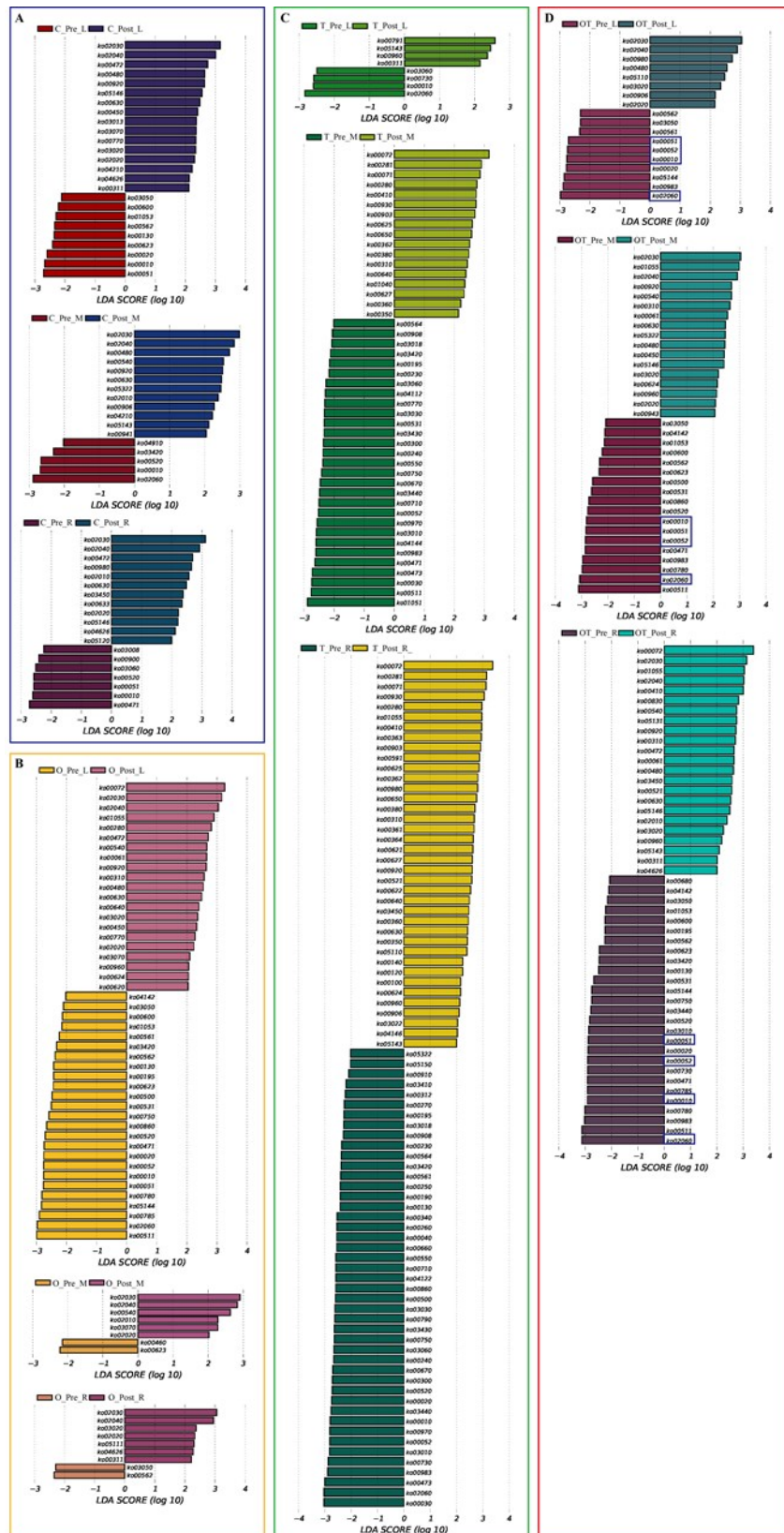


Fig. S5 Differential pathway of skin microbiota in (A) C group, (B) O group, (C) T group, and (D) OT group at the left-, forehead, and right-side facial skin sites pre- and post-intervention, respectively.

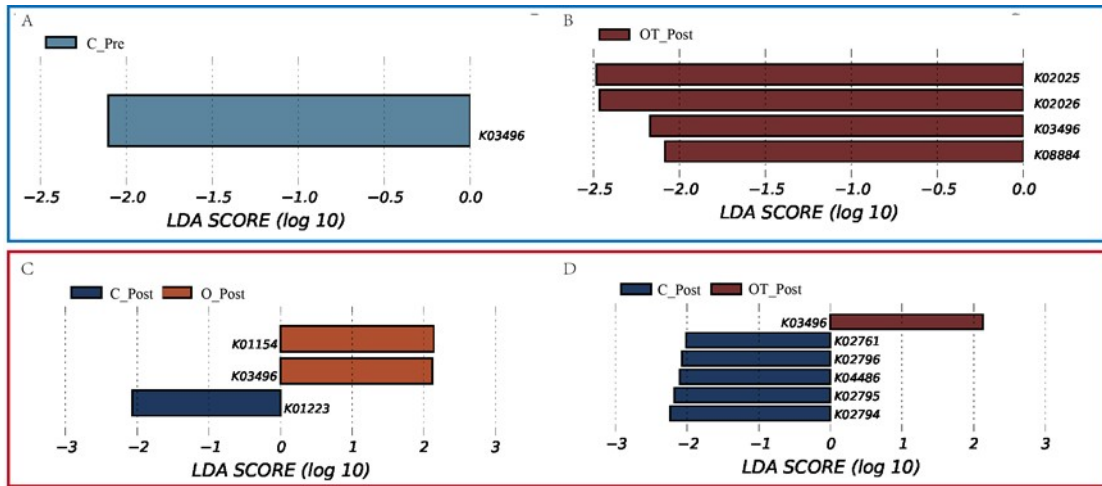


Fig. S6 Differential KO of gut microbiota in (A) each group pre- and post-intervention, and (B) each post-intervention group compared with C post-intervention group.

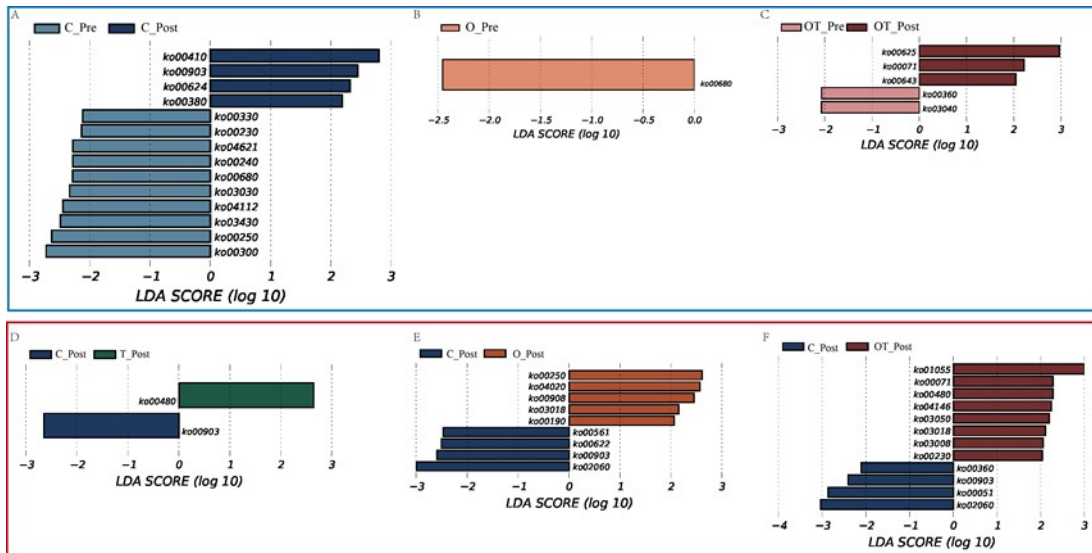


Fig. S7 Differential pathways of gut microbiota in (A) each group pre- and post-intervention, and (B) each post-intervention group compared with C post-intervention group.